Chapter 8

OUTDOOR LIGHTING CONTROL

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Section 8.01 Administration.

- **A. Purpose.** This chapter is intended to restrict the permitted use of outdoor artificial illuminating devices emitting undesirable rays into the night sky which have a detrimental effect on astronomical observations, or which would otherwise be offensive to neighboring and near-by properties.
- **B.** Conformance with Applicable Code Provisions. All outdoor artificial illuminating devices shall be installed in conformance with the provisions of this article, any other applicable provisions of the zoning ordinance of the Town of Fountain Hills and any building ordinances of the Town of Fountain Hills which may hereafter be enacted, as applicable. Where any provisions of any of the Arizona state statutes or of the federal law, or any companion ordinance comparatively conflicts with the requirements of this chapter, the more restrictive shall govern.
- C. Approved Material and Methods of Installation. The provisions of this chapter are not intended to prevent the use of any material or method of installation not specifically prescribed by this chapter, provided any such alternate has been approved in writing by the Town of Fountain Hills Community Development Director upon a finding that the proposed design, material or method:
 - 1. Provides approximate equivalence to the applicable requirements of this chapter; or
 - 2. Is otherwise satisfactory and complies with the intent of this chapter.

Section 8.02 Definitions.

For purposes of this chapter, the following terms shall have the following definitions:

Fossil Fuel Light: Light produced directly or indirectly by the combustion of natural gas or other utility-type fossil fuels.

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Fully Shielded: Means the fixture shall be shielded so that light rays emitted by the fixture, either directly from the lamp or indirectly from the fixture, are projected below a horizontal plane running through the lowest point on the fixture where light is emitted.

Individual: Any private individual, tenant, lessee, owner or any commercial entity including, but not limited to, companies, partnerships, joint ventures or corporations.

Installed: An initial installation of outdoor light fixtures on or after the effective date of this chapter.

Luminary: A body that gives light.

Partially Shielded: Means the fixture shall be shielded so that the bottom edge of the shield is below the plane centerline of the light source (lamp), minimizing the emission of light above the horizontal plane.

Outdoor Light Fixtures: Outdoor artificial illuminating devices, outdoor fixtures, lamps and other devices, permanent or portable, used for illumination or advertisement. Such devices shall include, but are not limited to, search, spot or flood lights for:

- 1. Buildings and structures
- 2. Recreation areas
- 3. Parking lot lighting
- 4. Landscape lighting
- 5. Billboards and other signage (advertising or other)
- 6. Street lighting

Section 8.03 General Requirements.

A. Shielding and Filtration.

- 1. All outdoor light fixtures, except those exempt from this chapter, shall be fully or partially shielded as required in Section 8.03, B.
- 2. It is recommended that existing mercury vapor fixtures either be replaced or be equipped with a filter whose transmission is less than ten (10) percent total emergent flux at wavelengths less than forty-four hundred (4400) angstroms. "Total emergent flux" is defined as that between three thousand (3000) and seven thousand (7000) angstrom units.
- 3. Low pressure sodium lamps are the preferred light source for minimizing adverse effects on astronomical observations.
- **B. Requirements for Shielding**. The requirements for shielding light emissions from outdoor light fixtures and requirements for filtration are as set forth in the following table:

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Requirements For Shielding/Filtration

Fixture Lamp Type	Must be	Filtering
	<u>Shielded</u>	Recommended
Low pressure sodium ¹	Partially	None
High pressure sodium	Fully	None
Metal halide ²	Fully	Yes
Fluorescent	Fully ³	Yes^4
Quartz ⁵	Fully	None
Incandescent greater than 150w	Fully	None
Incandescent 75w to 150w	Partially	None
Incandescent less than 75w	None	None
Fossil fuel	None	None
Glass tubes filled with		
neon, argon, and krypton	None	None
Other sources	As approved by the zoning administrator	

Section 8.04 Prohibitions.

- **A. Searchlights.** The operation of searchlights for advertising purposes is prohibited.
- **B.** Recreational Facilities. No outdoor recreational facility, public or private, shall be illuminated by nonconforming means after 11:00 P.M. except to conclude a specific recreational, sporting or other activity that began prior to 10:00 P.M.
- C. Outdoor Building or Landscaping Illumination. The unshielded outdoor illumination of any building, landscaping, signing or other purpose, is prohibited except with incandescent fixtures drawing less than seventy-five (75) watts. The combined outdoor unshielded lighting shall not exceed seventy-five (75) watts within a 25 foot radius after 11:00 p.m. All illumination shall be so arranged as not to shine upon or reflect onto adjoining properties.
- **D. Exterior Lighting**. All lighting for off-street parking or loading areas or for the external illumination of buildings or signs shall be directed away from and shielded from any adjacent residential property and shall not detract from driver visibility on adjacent streets.
- **E. Mercury Vapor.** All mercury vapor fixtures are prohibited.
- **F. Signage.** All outdoor signage, with its lighting, shall conform to Section 8.03 and shall be of such size and color as not to interfere with traffic or limit visibility of adjoining property. Illumination on any sign not wholly illuminated from within must conform to Section 8.03 and be directed towards the ground. Signs shall not have intermittent illumination or flashing lights (see Section 6.03.C.6).

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This is the preferred light source to minimize undesirable light into the night sky affecting astronomical observations.

Metal halide lamps shall be in enclosed luminaries. See also Section 8.04,F.

Outdoor advertising signs of the type constructed of translucent materials and wholly illuminated from within do not require shielding.

Warm white and natural lamps are preferred to minimize detrimental effects.

For the purposes of this division, a quartz lamp shall not be considered an incandescent light source.

Recommended for existing fixtures. See also Section 8.04, G.

G. Metal Halide Lamps. Metal halide display lighting shall not be used for security lighting after 11:00 p.m. (or after closing hours if before 11:00 p.m.) unless fully shielded.

Section 8.05 Permanent and Temporary Exemptions.

- **A. Nonconforming Fixtures.** All outdoor light fixtures existing and fully installed prior to the effective date of this chapter are nonconforming indefinitely; provided, however, that no change in use, replacement, structural alteration, or restoration (after abandonment of outdoor light fixtures) shall be made unless it thereafter conforms to the provisions of this chapter.
- **B. Federal and State Facilities.** Those facilities and lands owned, operated or protected by the U.S. federal government, the State of Arizona or Maricopa County are exempted from all requirements of this chapter. Voluntary compliance with the intent of this chapter at those facilities is urged.
- **C. Special Exemption.** The Zoning Administrator may grant a special exemption from the requirements of Section 8.03 only upon a written finding that there are extreme geographic or geometric conditions warranting the exemption and that there are no conforming fixtures that would suffice.
- **D. Utility Exemption.** Utility companies entering into a duly approved contract with the Town of Fountain Hills in which they agree to comply with the provisions of these regulations, shall be exempt from applying for and obtaining a permit for the installation of outdoor light fixtures, including residential security lighting.

E. Temporary Exemptions.

- 1. Request. Any individual may submit a written request (on a form approved by the Zoning Administrator) for a temporary exemption to the requirements of this chapter, such exemption to be valid for thirty (30) days, renewable at the discretion of the Zoning Administrator.
- 2. The request for temporary exemption(s) shall provide:
 - a. Specific exemptions(s) requested.
 - b. Type and use of outdoor light fixture for which exemption is sought.
 - c. Duration of the requested exemption.
 - d. Type of lamp(s) and calculated lumens.
 - e. Total wattage of lamp(s).
 - f. Proposed location.
 - g. Previous temporary exemptions, if any.
 - h. Physical size of outdoor light fixture and type of shielding to be provided.

In addition to the above data, the Zoning Administrator may request any additional information which would assist his evaluation of the request.

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Section 8.06 Procedures For Compliance.

A. Application.

- 1. Any individual applying for a building or use permit under the zoning ordinance of the Town of Fountain Hills intending to install outdoor lighting fixtures shall, as a part of said application, submit evidence that the proposed work will comply with this chapter.
- 2. All other individuals intending to install outdoor lighting fixtures shall submit an application to the Zoning Administrator providing evidence that the proposed work will comply with this chapter. Landscape lighting or decorative lighting consisting of light fixtures of incandescent bulbs under twenty-five (25) watts are exempt from the requirements of this paragraph.
- **B.** Contents of Application. The application shall contain, but shall not necessarily be limited to the following, all or a portion of which may be part of or in addition to the information required elsewhere in the zoning ordinance of the Town of Fountain Hills.
 - 1. Plans indicating the location on the premises, and the type of illuminating devices, fixtures, lamps, supports, etc.
 - 2. Description of the illuminating devices, fixtures, lamps, supports, etc. This description may include, but is not limited to, manufacturer's catalog cuts, and drawings (including Sections where required).

The above required plans and descriptions shall be sufficiently complete to enable the Zoning Administrator to readily determine compliance with the requirements of this chapter. If such plans and descriptions do not readily enable this determination, the applicant shall submit evidence of compliance by certified test reports as performed by a recognized testing lab.

- C. Issuance of Permit. Upon compliance with the requirements of this Chapter, the Zoning Administrator shall issue a permit for installation of the outdoor lighting fixtures, to be installed per the approved application. In the event the application is part of another application under this ordinance, the privilege applied for will be granted if the applicant is in compliance with this Chapter as well as the other requirements for the privilege applied for under this ordinance.
- **D.** Amendment to Permit. Should the applicant desire to use different outdoor light fixtures or lamps after a permit has been issued, the applicant must submit all changes to the Zoning Administrator for approval, with adequate information to allow determination of compliance with this Chapter.

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